Before the
FEDERAL COMMUNICATIONS COMMISSION
Washington, D.C. 20554

Amendment of Part 90 of the Commission's Rules to Provide for Flexible Use of the 896-901 and 935-940 MHz Bands Allotted to the Business and Industrial Land Transportation Pool	)	WT Docket No. 05-62

COMMENTS OF AERONAUTICAL RADIO, INC.

I. INTRODUCTION

Aeronautical Radio, Inc. ("ARINC"), by its attorneys, hereby submits its comments on the *Notice of Proposed Rulemaking* in the above-captioned proceeding.[1] In this proceeding, the Commission requests comment on its plan to auction off the spectrum in the 896-901/935-940 MHz band ("900 MHz") that is now allotted for business and industrial/land transportation ("B/ILT") entities over wide geographic areas.[2]

ARINC, a licensee of several 900 MHz B/ILT Pool frequencies, opposes the Commission's proposals in this proceeding and recommends that some portion of this spectrum be set-aside for continued B/ILT use. In the *NPRM*, the Commission does not give sufficient weight to the critical function that this spectrum serves for both public safety and homeland security. ARINC believes that the result of this proposal will be that the majority of the 900 MHz B/ILT spectrum

[1] *Amendment of Part 90 of the Commission's Rules to Provide for Flexible Use of the 896-901 MHz and 935-940 MHz Bands Allotted to the Business and Industrial Land Transportation Pool, Oppositions and Petitions for Reconsideration of 900 MHz Band Freeze Notice*, WT Docket No. 05-62, DA 04-3013, FCC 05-31 (rel. Feb. 16, 2005) ("*NPRM*").

[2] *Id.*, ¶ 17-25.

will be occupied by commercial providers, leading to a scarcity of spectrum for future B/ILT uses.

Furthermore, the Commission's proposal does not provide adequate interference protection for incumbent users. There is currently not enough evidence to conclude that B/ILT users will be sufficiently protected by the safeguards that the Commission proposes. B/ILT licensees deserve interference protection on par with Public Safety licensees in the 800 MHz band, and the Commission must avoid creating a new situation like the one addressed in the 800 MHz rebanding proceeding.

II. THE COMMISSION'S PROPOSAL WILL HAVE A MAJOR IMPACT ON THE AVAILABILITY OF SPECTRUM FOR CRITICAL PUBLIC SAFETY AND HOMELAND SECURITY PURPOSES

A. B/ILT Licensees Utilize the 900 MHz B/ILT Spectrum For Important Public Safety and Homeland Security Communications

In the *NPRM*, the Commission discusses the current usage of the B/ILT pool and notes that while clusters of licenses exist in certain geographic areas, demand for this spectrum in most other areas is very low.[3] Because the Commission considers this limited use to be spectrum inefficient, it concludes that it should take the drastic action to introduce significant flexibility in the B/ILT spectrum and auction off the remaining spectrum over wide geographic areas.

In proposing this plan, the Commission first fails to note that almost all of this spectrum in the Top 20 markets is occupied, evidencing that the use of this spectrum is greater than that suggested by the *NPRM*. Second, the Commission does not recognize that B/ILT spectrum supports a number of uses that are vital to public safety and homeland security. B/ILT spectrum is used by Critical Infrastructure Industry ("CII") licensees, like water companies and nuclear

[3] *Id.*, ¶ 10.

power plants, to protect their facilities from tampering or attack and to respond to emergency situations and outages. Moreover, as the homeland security responsibilities of B/ILT eligibles increase, so too will the spectrum needs of these licensees. For example, ARINC has noted in a previously filed license modification application that this spectrum could be used to relieve the overload on systems at airports that serve the same public safety functions. Among the important uses this spectrum can support are (1) sterile area control, which ensures that all individuals entering secure airport areas have "passed through the appropriate metal detector checkpoints," (2) positive bag match, which is used to confirm that all baggage on a plane is associated with a passenger aboard the aircraft, and (3) special passenger (*i.e.*, VIP and prisoner) movement, which often requires special security details and plane-side vehicle access.[4]

B. The Auctioning of Geographic Area Licenses Will Lead to Spectrum Scarcity for True B/ILT Uses

The Commission's proposal to auction off the remaining spectrum will have a negative effect on the amount of spectrum that will be available for non-commercial B/ILT uses in the future. If this proposal is put into place, it will encourage B/ILT eligibles, including Nextel, to bid substantial sums for these licenses in order to speculate on their value either for their own commercial use or for the commercial use of assignees. Indeed, the significant increase in 900 MHz B/ILT applications filed after the Commission's decision to allow CMRS operation in this band is indicative of the speculative demand for this spectrum.[5] After the proposed auctions, the spectrum now allotted exclusively for B/ILT uses will be licensed to speculators over large

[4] *See* ULS File No. 0001214365, Attachment at 4-5.

[5] *See NPRM*, ¶ 64. ARINC views these applications as speculative since most of the B/ILT channels in major markets are already licensed and in use. It is unlikely that these applications reflect actual explosive growth in the demand for these channels in rural and secondary markets across the country. In such markets, ARINC is confident that 900 MHz SMR capacity remains plentiful for any real commercial needs.

geographic areas and unavailable for new B/ILT licensees and for incumbents wanting to expand their systems.

This situation will be especially pernicious because of the way in which B/ILT licenses have historically been used. Unlike commercial providers, B/ILT eligibles generally apply for licenses on an "as-needed" basis to implement communications systems for immediate (and previously unforeseen) needs. These licenses are also usually issued for a small geographic area, often covering only the licensee's warehouse or other facilities. If new geographic area licenses are issued, this will diminish the ability of B/ILT users to establish these new systems as needs arise.

Furthermore, the Commission should consider this proposal in light of the already diminished amount of spectrum available for non-commercial, non-Public Safety PLMR users. For example, in the 800 MHz band there is very little excess capacity for new B/ILT users. The 700 MHz spectrum that has been earmarked for Public Safety and Commercial entities remains encumbered by the delayed DTV transition. Moreover, due to intense spectrum sharing, the 450 MHz band is largely unsuitable for advanced B/ILT uses.

Because of the important function that this spectrum serves in public safety and homeland security and the decreasing amount of spectrum available to B/ILT users, the Commission should not entirely reallocate the 900 MHz B/ILT spectrum. Instead, the Commission should set-aside a portion of this spectrum for the exclusive use of B/ILT eligibles and protect the important services that are provided by these entities.

III. THE COMMISSION SHOULD PROVIDE 900 MHZ B/ILT INCUMBENTS WITH THE SAME INTERFERENCE PROTECTION PROVIDED TO 800 MHZ PUBLIC SAFETY INCUMBENTS

Regardless of the amount of spectrum that is ultimately set-aside for B/ILT users, ARINC also opposes the Commission's proposal to provide 900 MHz B/ILT incumbents with only the interference protection currently offered by existing 900 MHz SMR MTA licenses. There is currently not enough information to determine the extent of interference that will occur if and when commercial services expand operations in this band. As such, the Commission should take every precaution to avoid a repeat of the severe interference problems that arose in the 800 MHz public safety context, and should provide 900 MHz B/ILT incumbents with similar protection afforded Public Safety licensees in the 800 MHz proceeding. It should do so despite the claims of Nextel that such protection is unnecessary, especially since Nextel was aware of the possibility of interference at the time it deployed its 900 MHz ESMR iDEN network.

A. There Has Not Been Sufficient Experience With Commercial Services in the 900 MHz Band to Determine the Extent of Interference Harm

Based on recent comments filed by Nextel in the 800 MHz Rebanding docket,[6] ARINC anticipates that Nextel will be among the most vigorous opponents of applying the 800 MHz interference abatement rules to the 900 MHz B/ILT spectrum. Nextel contends in those comments that the 800 MHz interference abatement rules are not necessary at 900 MHz because "it has not received a single interference complaint from a B/ILT licensee" since it started operating its 900 MHz ESMR system in 2002.[7] While this may be true, ARINC believes that three years is not a sufficient period of time to determine whether or not interference will occur

[6] *See* Opposition and Comments of Nextel Communications, Inc. Regarding Petitions for Reconsideration, WT Docket No. 02-55, at 19-20 (filed Apr. 21, 2005) ("*Nextel Opposition*").

[7] *Id.* at 19.

in the 900 MHz B/ILT band. Nextel has not fully deployed its iDEN technology in this band and, as it does so, the likelihood of interference will increase significantly. Furthermore, experience with the 800 MHz band shows that it can take several years before significant interference arises and is reported in a given band. Thus, the Commission should not take Nextel's statement as conclusive of the absence of interference in the 900 MHz B/ILT band.

B. All Licensees Are Deserving of Effective Interference Abatement from New Entrants

Nextel also notes in its recent opposition that because the incumbents in the 900 MHz B/ILT band are not "public safety" entities, they are not deserving of the same interference protection that public safety received in the 800 MHz proceeding. Nextel suggests that incumbent licensees in this context are more to blame than public safety entities for any interference, because the interference arises from a "reluctance to commit the resources necessary to construct and maintain up-to-date systems and take other reasonable steps to make their systems more interference resistant."[8]

This argument turns Commission policy on its head. Commission precedent establishes that the last entrant to move into a spectrum-band is responsible for mitigating any interference issues that arise. Nextel attempts to shift the blame for interference in this band onto the incumbents by noting that these licensees have not invested enough in their systems to avoid interference being caused by Nextel.[9] This is inappropriate. There is no reason that B/ILT entities should not receive the same interference protection enjoyed by other similarly situated licensees. The right to interference protection is not exclusive to Public Safety entities, but instead is granted to all

[8] *Id.* at 16.

[9] *Id.*

licensees that operate in compliance with the Commission's rules. In that sense, an incumbent's investment in its own system is not a factor that should be considered by the Commission in determining whether interference protection is warranted.

Instead, the Commission should, consistent with precedent, require new entrants like Nextel to construct their systems in a manner that protects incumbent licensees from interference. This is especially true since Nextel itself knew before it began operating in 900 MHz that its iDEN system might cause interference to incumbents. Nextel filed its White Paper encouraging the 800 MHz rebanding plan on November 21, 2001. Thus, on and before this date, Nextel was well aware of the significant interference that its iDEN system was causing in the 800 MHz band.[10] Nevertheless, in *2002*, Nextel began operating its iDEN system in the 900 MHz band without increased interference protection.[11] ARINC believes that if the Commission allows Nextel to deploy its system into the current B/ILT band without increased interference protection, it will ultimately result in a situation similar to that experienced in the 800 MHz Public Safety context. The Commission should take proactive steps to avoid a repeat of that problematic situation by implementing the 800 MHz interference framework in the 900 MHz B/ILT band.

IV. CONCLUSION

The Commission's proposal to introduce flexibility into the 900 MHz B/ILT band will have a significant and negative impact on current and future B/ILT users. The Commission should recognize the vital function that B/ILT users serve in ensuring the safety and security of U.S. citizens, and should ensure that enough spectrum will be available for future B/ILT users and

[10] *See* Promoting Public Safety Communications, Nextel Communications, *available at* http://wireless.fcc.gov/releases/011121-whitepaper_final.pdf (filed Nov. 21, 2001).

[11] *Nextel Opposition* at 19.

uses. Moreover, the Commission should implement the interference abatement framework from the 800 MHz rebanding in this band, in order to prevent interference like that experienced by 800 MHz Public Safety licensees.

Respectfully submitted

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